



## Soraa Internal Test Report: IES LM79-08

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| <b>Company Information:</b> |
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| <b>SORAA Inc</b><br><b>6500 Kaiser Dr, Fremont, CA 94555</b><br><b>(510) 456-2200</b> |
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### **SM16GA-07-36D-830-H1**

**Soraa MR16 GU10/120V, 3000K, 7.5W, 36D**

**Relevant Standards**

**IES LM-79**

**ANSI C78.377**

**IES PR-16**

**Soraa Lamp Lab**

## 1.0 Product Information

|                           |  |
|---------------------------|--|
| Customer Reference ID     | SM16GA-07-36D-830-H1                                 |
| Manufacturer Reference ID | SM16GA-07-36D-830-H1                                 |
| Lamp Description          | LAMP, MR-16 GU10/120V 7.5W 3000K 90 CRI 36D Soraa-US |
| Rated Input Voltage       | 120V   |
| Rated Input Power         | 7.5W   |
| Nominal CCT               | 3000K  |

### Photos



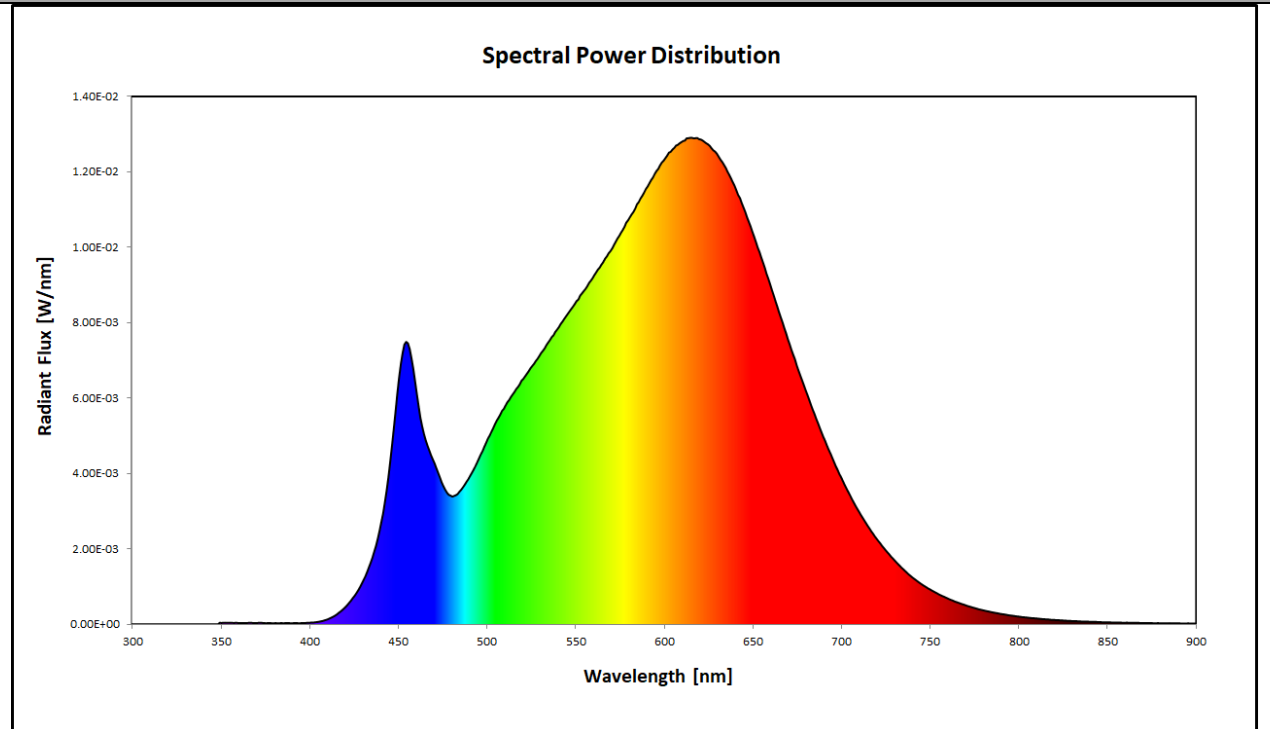
## 2.0 Results – Sphere Measurements

| Test Conditions           |                            |
|---------------------------|----------------------------|
| Orientation               | Vertical                   |
| Stabilization Time (min)  | 35-40                      |
| Correction Factor Applied | Self-Absorption Correction |
| Sphere Geometry           | 2m Sphere                  |
|                           | 95% Coating Reflectance    |
|                           | 4π Geometry                |
| Ambient Temperature (°C)  | 23±1                       |

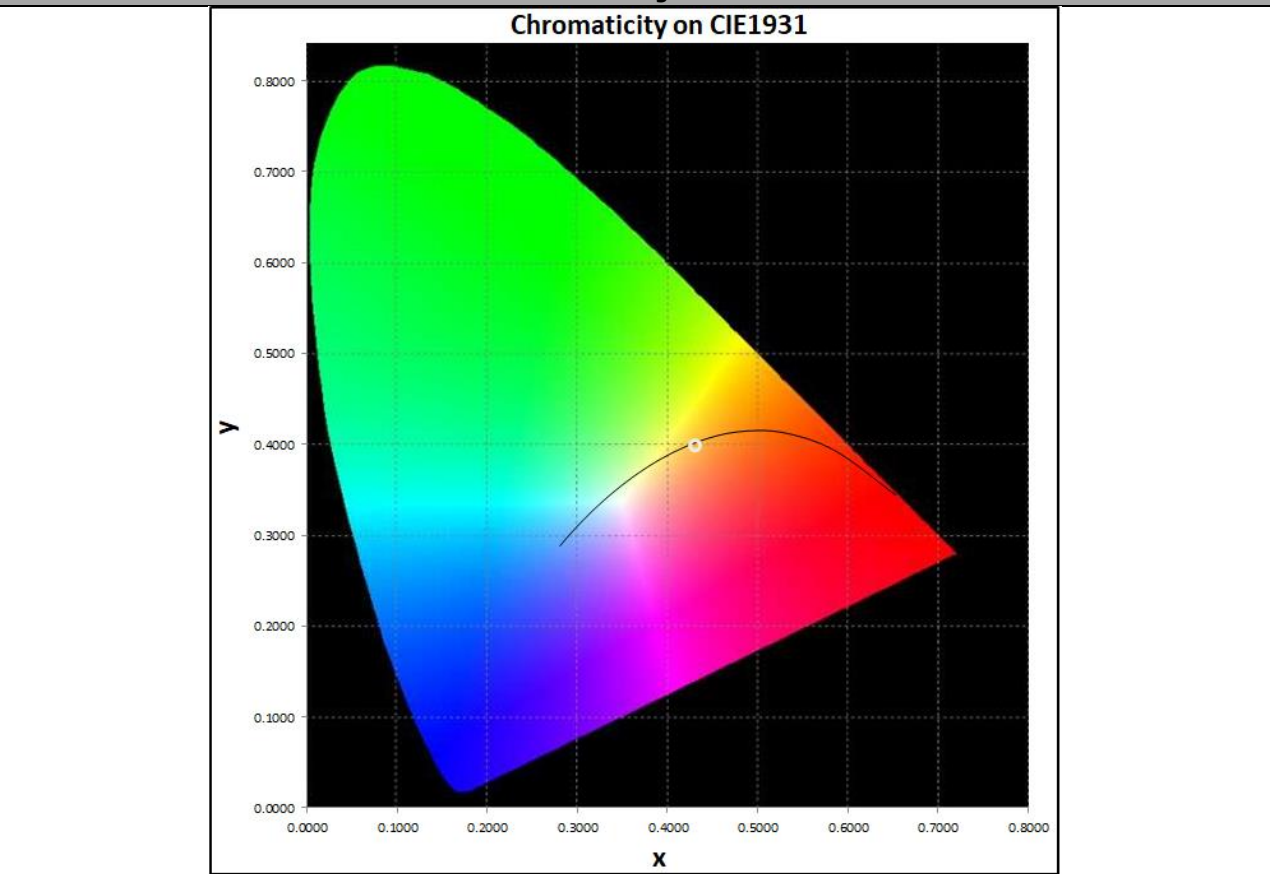
| Instrument            |                                |                    |                |
|-----------------------|--------------------------------|--------------------|----------------|
|                       | Instrument                     | Manufacturer       | Model          |
| Photometric           | Spectroradiometer              | Otsuka Electronics | MC-9801:311C   |
|                       | Integrating Sphere             | Labsphere          | 2m             |
|                       | Standard Lamp                  | Labsphere          | CSFS-1400 Lamp |
| Electrical Instrument | Power Supply for Standard Lamp | Labsphere          | LPS-150-0268   |
|                       | Power Supply for Aux Lamp      | Labsphere          | LPS-100-0833   |
|                       | Power Supply for Test Lamps    | Ametek             | 1501i          |
|                       | Power Meter for Test Lamps     | Yokogawa           | WT210          |
| Thermometer           | Digital Ambient Monitor        | Mitsubishi         | PAR-33MAA      |

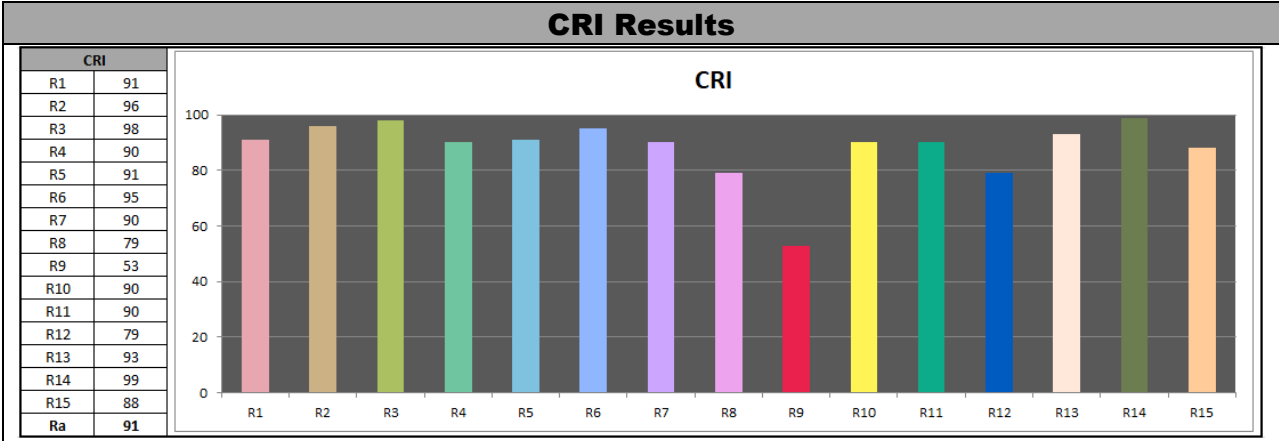
| Measurement Results      |               |                   |         |
|--------------------------|---------------|-------------------|---------|
| Photometric              |               | Electrical        |         |
| Total Flux [lm]          | 659           | Input Voltage [V] | 120.07  |
| Luminous Efficacy [lm/W] | 84.1          | Frequency [Hz]    | 59.9    |
| Chromaticity Coordinates | $u' = 0.2491$ | Current [A]       | 0.06801 |
|                          | $v' = 0.5182$ | Power [W]         | 7.839   |
|                          | $x = 0.4310$  | Power Factor      | 0.96    |
|                          | $y = 0.3984$  |                   |         |
| CCT [K]                  | 3056          |                   |         |
| CRI                      | 91            |                   |         |
| R9                       | 53            |                   |         |
| Duv                      | -0.0014       |                   |         |

## Spectral Results



## Chromaticity Results





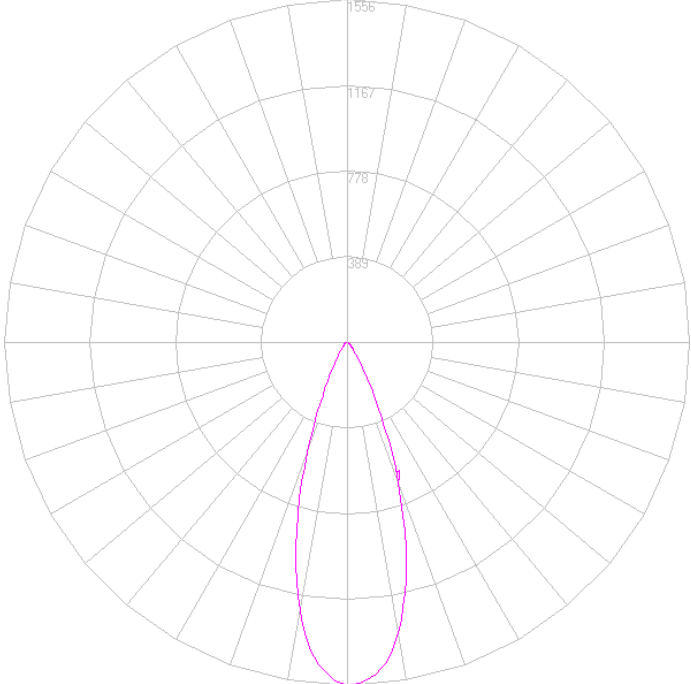
## 3.0 Results – Goniometric Measurements

| Test Conditions          |           |
|--------------------------|-----------|
| Goniometer Distance (m)  | Far-Field |
| Stabilization Time (min) | >30       |

| Instrument            |                             |              |         |
|-----------------------|-----------------------------|--------------|---------|
|                       | Instrument                  | Manufacturer | Model   |
| Photometric           | Photometer                  | TechnoTeam   | Rigo801 |
| Electrical Instrument | Power Supply for Test Lamps | Ametek       | 1501i   |
|                       | Power Meter for Test Lamps  | Yokogawa     | WT210   |

| Measurement Results          |      |                   |         |
|------------------------------|------|-------------------|---------|
| Photometric                  |      | Electrical        |         |
| Center Beam Candlepower [cd] | 1556 | Input Voltage [V] | 120.07  |
| Beam Angle [°]               | 35.4 | Frequency [Hz]    | 59.9    |
| Field Angle [°]              | 59.9 |                   |         |
| Luminous Flux [lm]           | 654  | Current [A]       | 0.06801 |
|                              |      | Power [W]         | 7.839   |
|                              |      | Power Factor      | 0.96    |

## Goniometric Results (Polar, 0°-180°)



## Goniometric Results (Cartesian, 0°-180°)

